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Titolo	Biomedical Informatics : Discovering Knowledge in Big Data / / by Andreas Holzinger
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Descrizione fisica	1 online resource (XIX, 551 p. 210 illus., 164 illus. in color.)
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Soggetti	Computational intelligence Bioinformatics Biomedical engineering Biomathematics Computational Intelligence Computational Biology/Bioinformatics Biomedical Engineering and Bioengineering Mathematical and Computational Biology
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction: Computer Science meets Life Science -- Fundamentals of Data, Information and Knowledge -- Structured Data: Coding and Classification -- Biomedical Databases: Acquisition, Storage, Information Retrieval and Use -- Multimedia Data Mining and Knowledge Discovery -- Knowledge and Decision: Cognitive Science and Human–Computer Interaction -- Biomedical Decision Making: Reasoning and Decision Support -- Interactive Information Visualization and Visual Analytics -- Biomedical Information Systems and Medical Knowledge Management -- Biomedical Data: Privacy, Safety and Security -- Methodology for Information Systems: System Design, Usability and Evaluation.
Sommario/riassunto	This book provides a broad overview of the topic Bioinformatics (medical informatics + biological information) with a focus on data, information and knowledge. From data acquisition and storage to visualization, privacy, regulatory, and other practical and theoretical

topics, the author touches on several fundamental aspects of the innovative interface between the medical and computational domains that form biomedical informatics. Each chapter starts by providing a useful inventory of definitions and commonly used acronyms for each topic, and throughout the text, the reader finds several real-world examples, methodologies, and ideas that complement the technical and theoretical background. Also at the beginning of each chapter a new section called "key problems", has been added, where the author discusses possible traps and unsolvable or major problems. This new edition includes new sections at the end of each chapter, called "future outlook and research avenues," providing pointers to future challenges.